AUTHOR INDEX

A
Arbib, M. A. 31
Armbruster, P. 321
Arnon, R. 271
Ashby, Eric, Lord 205

B
Baker, A. C. 347
Bambrick, S. 220
Barrett, F. D. 284
Barry, R. G. 371
Beyer, H. 321
Biggins, D. R. 172
Binns, J. A. 202
Bock, R. 305
Böhne, D. 294
Bondy, S. C. 358
Bosch, F. 321

C
Cornforth, Sir John 107

D
Darwin, G. E. 94
Davidson, F. P. 103, 287
Day, R. H. 47
Dohmann, H. D. 321

E
Emling, H. 305

F
Fischer, B. E. 329
Fletcher, N. H. 6
Forbes, J. S. 230

G
Gage, J. 252
Gloger, M. 92
Gough, D. 240
Gregory, R. L. 4
Gresford, G. B. 366
Gurnani, S. 259

H
Harvey, H. 366
Heinrich, R. 370
Herrmann, G. 313
Hicks, Sir John 213
Hildenbrand, K. D. 305

J
Jackson, Sir Robert 287
Jahoda, M. 200
Jain, H. K. 367

K
Kirchner, H. P. K. 160
Kohn, A. 94
Kozhuharov, C. 321
Kraft, G. 326

L
Lamb, H. H. 365
Lawton, D. T. 31
Liesen, D. 321

M
McCloskey, D. I. 14
McCrea, W. H. 372
Mann, R. 321
Massey, C. T. 70
Michaelis, A. R. 1, 97, 193, 288, 289
Mokler, P. H. 321

N
Narodny, L. 191
Needell, A. A. 95
Nilsson, S. 137

O
Overton, K. J. 31

P
Pippard, Sir Brian 373
Pirie, N. W. 149
Präve, P. 93
Preston, A. 190
Proske, R. 96
Putlitz, G. zu 291, 336

R
Reason, J. 179
Ripley, S. D. 196
Rothenberg, M. 339
Rubenstein, B. 369
Rummel, R. 113

S
Schawlow, A. L. 59
Schmidt, A. 100
Sela, M. 271
Shaw, T. 190
Sheth, M. 259
Spohr, R. 329
Stent, G. S. 86
Stenton, J. 70
Stürmer, W. 123
Sykes, J. B. 82

T
Taylor, C. A. 20

U
Uphouse, L. L. 358

V
Vick, Sir Arthur 90

SUBJECT INDEX

A
Aborigines, Australian 366
Academy of Sciences, Australian 13, 19, 30, 45, 57
Accelerators, electrostatic 296
  heavy ion 296
  radio frequency 296
  Wideröe's 296
Agricultural Research Policy 367
Alaska Pipeline 105
Alchemy 289
Algorithm 34
Alice Springs 366
Alvarez principle 301
American Philosophical Society 339, 340
AMES 284
Amplifier 23
Anniversaries of 1984 2, 3
Antigens, synthetic 271
Antitechnology 101
Aquaculture 99
Aristotle 4, 255
Art and Science 164
  concept 86
Art, history of 253
Artefacts 254
  archaeological 190
Artists, aging 256

Assaying 230
fire 231
platinum 235
volumetric 234
Asse II, saltmine 96
Assembly line 32, 43
Asteroids, mining of 105
Astronomy, early American 341
Asymmetry, centres of 110
Atomic collision studies 322
physics 321
Australia, central 366
Australian mineral resources 220
policy 222
Ayer's Rock 366

B

Balmer spectrum 59
Barnacle tree 152
Bassoon 25
Bauhaus 88, 256
Beam-foil method 321
BEVALAC 305, 312
Bhabha Atomic Research Center 264
Big Bang 241
Biotechnology 93
Black holes 336
Blunders, catastrophic 179, 187
Bohr, Niels 373
Bondi Committee 348
Botany, early American 342
Boulton, Matthew 233
Boyle, Robert 289
Brain 360
Buckland, William 366

C

CAD/CAM 284
Calculating Boy, The 94
Calculations, mental 95
Carbon dioxide 90
greenhouse effect of 91
growth rate 91
Carrying Capacity Concept 137
assessment of 146
definition of 141
planning 146
Cash crop production 203
Catalysts, heterogeneous 109
CERN 167
Chemical criminalistics 92
Chemistry, forensic 92
CHEMRAWN II 97
Child nutrition 156
Chirality 107
origin of 108
Chlorofluoromethanes 90
Cities, giant 147
Climatic change 91
Climatology 365
Coal, chemicals 92
exploration 70
integrated mine 73
mine, Queensland 225
reserves 72
Collisions, aircraft on runway 183
Moorgate 187
trains 183
Colonialism 202
Color Atlas 256
Colour, blindness 253
harmony of 254
history of 252
libraries 253
terminology 252
vision 89
Compton, A. H., Memorial Lecture 205
Coulomb barrier 294
force 305
Conformation 274
Communication, channel 8
man-machine 4
telepathic 7
Consonance 26
Constraints, social 142
Construction, naval 190
Computer control of coal mine 79
for lexicography 84
Consumer demand 139
Contraceptives 97, 153
Control, of attention 186
of mental processes 185
Converging personality types 173
Conveyor belts for coal 73
Cooperative computation 45
Counterfeiting 237
Crustal Dynamics Project 121
Cyclotrons 292, 297

D

Dalton, John 4
Dark Green Leafy Vegetables 153
Decision-making 208
Depth estimation 39
DESY 167
Diplomacy 103
Diptheria 278
Disaster, fiction novels 194
international research laboratory 193
interdisciplinary research 193
relief 194
Dissipative collisions 309
Dissonance 26
Disturbances, random 217
Diverging personality types 173
DNA 328
Drip line 314

E

Ear-brain system 21
Earth, inhomogeneities 115
in space 116
interior of 114
subduction zones 115
Econometrics 218
Economic growth 139
Economics 213
Electromyogram 18
Element 107 290, 315
108 290, 317
109 290, 315
Elements, superheavy 290, 317
El Proyecio Experimental del Vivienda 105
Energy crisis 103
Engineering Our Future 104
Engineering paradox 100
Engineers' subculture 100
Environmental protection 229
Enzymes 107
Equality of sexes 259
Errors 183
law of 184
proneness 184
Experimental physics, early American 344
Exploration, coal 70
Exotic nuclei 313
investigation of 314
production of 314

F

Fashions, food 149
in science 162
oscillations in 162
physics 160
Fatigue 18
Feed-back, tactile 31
Feminists 369
Fertilizers 97
Filtering, acoustical 242
Flint 191
Fluorescence 62
FOE 35
Food, blood as 152
dog as 149
horse as 151
offal as 152
policy 158
preservation of 150
production 97, 202
snail as 150
spinach as 151
termite as 149
Foot-and-mouth disease 278
Forcels 33
Forensic chemistry 92
Forgeries 237
Formant 23
Formation, photochemical 110
Fossils 123
bats 125
fakes 131
hunting of 126
jellyfish 130
unknown 131
Franklin, Benjamin 339
Frequencies, resonant 243
Frequency analysis 20
Freund's adjuvant 278
Fusimotor 15
Fusion, at relativistic energies 310
between heavy ions 307

G

GANIL 293, 298
Gaussian mountains 37
Genetechnology 93
Genetic engineering 93
uniformity 368
Genetics 98
Geodesy 113
Geology, English School of 366
Geophysics 113
GEOS-3 120
Geoscience 96

Gesellschaft für Schwerionenforschung, GSI 290, 291, 294, 305, 313, 321, 326, 329, 338
Glaciology 371
Goethe, Wolfgang von 1
Farbenlehre 29, 255
Goldsmith's Company 230
Gravitation 113
Ground freezing 75

H

Hallmarking 230
Harvard Botanic Garden 344
Harvard College Observatory 341, 342
Hearing process 20
Heavy ion, accelerators 294
microlithography 334
research 289, 291, 294, 305, 313, 321, 329, 336
applied 329
in medicine and biology 326
Henry, Joseph 345
Helioseismology 240
deductions from 246
prognosis 249
Helium, abundance of 246
Helmholtz, Hermann von 4
Hepatitis B virus 278
HERA 167
Herbicide Analysis 92
Hi-Fi 29
HILAC 299
Hodgkin, Sir Alan 339
Hydrogeology 74
Hydrolysis 110
Hypothalamus 361
Human, diet 155
ecology 137
fertility 137
milk 152
protein requirement 156
Humour in mathematics 94
Hunsrück 128

I

Ice core studies 91
Ice-free Arctic 91
Ignorance, zones of 147
Illusions, brightness 53
component-objects 51
edges and contours 54
intersecting-line 50
Müller-Lyer 48
object-filed 51
perceptual 47
visual 87
Image interpretation 44
Immune, response 272
system 275
Immunity, nonspecific 273
Immunogenicity 274
Immunology 271
Immunopharmacology 280
Immunoregulation 281
Influenza virus 279
Indian Institutes of Technology 261
Science Congress 266
Indian Space Research Organization 263
Women scientists 259
status of 263, 266
Women Scientists Association 266, 270
Interactionism 87
Intercontinential engineering 105
Interdisciplinary, advice 103
contacts 102
cooperation 99
macro-engineering 104
neurosciences 360
paleontology 123
population policies 137
results 123
International Agricultural Research, Consultative Group on 368
Crop Research Centres 368
Rescue Organisation 194
Intramuscular receptors 14
tension 17
Investments, foreign in Australia 226
IUPAC 97

J

Japan Inc. 285
Jenner, Edward 271

K

Kapitsa, P. L. 373
Kapp lines 83
Kepler ellipse 118

L

LAGEOS 119, 120
Lamb shift 68
La Rance barrage 349
Laser, beam 120
broadly tunable 63
dye laser 63
labelling 64
Satellite Ranging 116
spectroscopy 59
Lexicography of science 82
Linear energy transfer 326
Longwavelength 119
Lucian of Samosata 1

M

Mach bands 55
numbers 83
Macro-engineering 103
Macro-Engineering 287
Man-machine communication 4
Manufacturing revolution 285
Mathematical Humour 94
Mathematics, pure and applied 213
Maxwell's equations 83
Mechanoreceptors 10
Medical education, Indian 265
Mekong River Project 287
Mendeléeff, D. 289
Periodic Table 289, 290
Mental calculations 95
Merry-go-round trains 74
Metatheory 87
Methane 76
Migration 139, 143
urban 139
Microelectronics 331
Microscopy 331
Mineral resources, Australian 220
royalties and taxes 228
Molecule, self-replicating 108
Money supply 103
Moon 118, 372
Music, scientific aspects 20

N

Narcotics 92
National Physical Laboratory: A History 95
Navigation 35
Neptune 372
Neurobiology 358
Neuro-endocrine system 362
Neurosciences, interdisciplinary 360
Neutron stars 291, 336
Nervous system 358, 361
Nitrogen balance 156
Noah 195
North-South relationship 138
Nuclear, matter, compression of 312
reactions 305
shell model 305
spectroscopy 305
tracks in solids 329
Nuclei, exotic 313
fast rotating 305
spherical 307
strongly deformed 306
transitional 307
Nucleotides 111
Nuclides, chart of 313
Nutation 117

O

Obituaries 5, 195
Ocean chemistry 91
science 120
Oklo natural uranium reactor 290
Optic flow 35
Opticks 255
Ouroboros 163
Overeating 154
Oxford English Dictionary 84

Paleo-audiology 123
-biology 123
-chemistry 124
-climatic record 371
-ecology 124
-engineering 124
-magnetism 115
-morphology 124
-neurology 124
-pathology 125
-radiograph 125
Paradise, material 141
Pasteur, Louis 271
Pattern, dynamic 32
recognition 9, 34
spatial 9

Perception 6, 87
depth 35
music 20
robots 31
Perceptual aftereffect 49
Pests 98
Petroiogy 191
Pheromones 192
Physics, Big 166
Small 168
Plant physiology 98
Polar Ice Sheets, 371
Polar motion 117
Pollution 98, 143
Polyphosphates 110
Population, control 97
density 97
growth 97, 139
limits of 141
policies 137
projections 143
prospects 138
Precession 117
Predictions, conditional 214
economic 217
unconditional 215
Processing, auditory 9
image 9
Probability, exercise in 209
theory of 216
Proprioception 14
Proton emission 315
Psycho-acoustic research 28
Psychopathology, Freud's 179
Public funds, spending of 206
Pyx, Trial of the 231

Q

Quarks 336

R

Radioactive Waste Problems 96
Radioactive waste, disposal of 96
Radiography 123
Radio interferometry 115
Receptors, intramuscular 14
Reed organ 23
Relaxation procedure 39
Reliquiae Diluvianae 366
Resource exhaustion 145
Resource, rural in Africa 202
Revolutions, scientific 161
Risk capital 287
Robot camera 43
Robotics 284
Robots, 31
intelligent 285
manufacture of 286
Robots in Manufacturing 284
Royal Astronomical Society 341, 372
Royal Corps of Naval Constructors 190
Rutherford, Ernest 289, 373
Rutherford – Simple Genius 373

S

Sahara 103
Salmonella 150
San Andreas Fault 115
Satellite Laser Ranging 116
Saturn 372
Schmid, Erich 5
Science, administration of 206
as cognitive activity 172
definition of 231
forensic 92
history of 160
lexicography of 82
personality types in 173
psychology of 172
social interests 177
systematic nomenclature of 82
unlimited vocabulary of 84
Scientific Instruments of the 19th Century 288
Scott Polar Research Institute 371
Scurvy, prevention of 157
Seaborg, G. 290
Sea lilies 127
stars 127
urchins 127
Sea defences, Dutch 287
Sea of Instability 290
SEASTAT-1 120
Sensation, muscular 14
Senses, chemical 10
Selby Coalfield 70
Seismology 245
Severn Barrage, Committee 348
construction 350
economics 352
environmental aspects 344
risks 354
Severn estuary 347
Sherrington, Sir Charles 14
Shock, electrical 18
Single-hole membranes 330
Slips, absent-minded 182
disastrous 183
in skilled activity 181
Smell 6, 191
Smithson, James 196
Smithsonian Institution 196, 339, 345
Snow, C. P. 5
Snowy Mountains Project 287
Soddy, Frank 373
Solar System, The Atlas of 372
Somerville, Mary 369
Sorcerer's Apprentice, The 1
Sounds, reflection of 29
simple 21
Spectrometry, infrared 93
Spectroscopy 322
Doppler-free 60
two-photon 65
laser 59
saturation 60
Speech 25
Standard, Britannia 232, 236
Sterling 232, 236
Stimulus, chemical 6
Starvation 97
Stereochemistry 107
Stereoscopic vision 49
Stimulus-matching 37
Streptococcus pyogenes 278
Structure, unsaturated 109
Sugar 155
Sun 240, 372
constituents of 241
interior 241
neutrino problem 242
oscillations of 244
rotation 248
vibrations of 244
analysis of 245
Superheavy quasi-atoms 324
Synthesis 110
Synthesizers, electronic 23

T

Taboos 149
Taste 6
Technology, barbarism of 100
Institutes of 100
Tectonics 115
Tempophon 28
Thames Flood Barrage 193
Third World 138
Thomson, J. J. 373
Tidal power 347
Timbre 22
Touch 6, 32
Track etching 330
Trans-isthmian canal 104
Translational decomposition 40
Trilobite 129, 134
Tunnel, undersea 104
ventil 77
Turbogenerators 350
Two-photon lines 65

U

Ultramarine 254
Unconscious Mind 4
Unemployment 200, 262, 287
consequences of 200, 201
UNILAC 291, 299
University, administrator 205
Grants Committee 207
libraries, German 370
President 205
promoting of 207
UPO 131, 135
Uranus 372

V

Vaccines, synthetic 271
Van de Graaff, R. J. 289
accelerators 292
Venus 372
Veterinary research 98
Vibrator, primary 23
Vision 363
integrating 31
Volkswagen Foundation 132

W

Webster's Dictionary 83
Wheatstone's stereoscope 50
Women scientists, Indian 259
Women's liberation movement 261
Woodwind 24
Working week, shortened 201

X

X-ray fluorescence 236

Y

Yadin, Y. 195
Yorkshire coalfield 70

Z

Zeitgeist 88, 253